LISTING OF THE CLAIMS

The following listing, if entered, replaces all prior versions of the claims in the present application.

1. (Currently Amended) A virtual switch, the virtual switch comprising:

a master distribution switch chassis comprising:

a first plurality of linecards;

a master supervisor card for controlling the first plurality of linecards;

a first master distribution switch port configured for communication with a slave distribution switch chassis over a virtual switch link, wherein the master distribution switch chassis and the slave distribution switch chassis communicate one or more media access control (MAC) notification frames according to a virtual switch link protocol over the virtual switch link;

a second master distribution switch port configured to communicate with a first satellite switch; and

a third master distribution switch port configured to communicate with core switches; and

a slave distribution switch chassis, coupled to the master distribution switch chassis by the virtual switch link and under the control of the master supervisor card, the slave distribution switch chassis comprising:

a second plurality of linecards;

a slave supervisor card;

a first slave distribution switch port configured for communication with the master distribution switch chassis over the virtual switch link;

a second slave distribution switch port configured to communicate with a second satellite switch; and

a third slave distribution switch port configured to communicate with the core switches.

2. (Canceled)

3. (Original) The virtual switch of claim 1, wherein the virtual switch link comprises a control virtual switch link and a data virtual switch link.

4.(Original) The virtual switch of claim 1, wherein the virtual switch link comprises a plurality of physical links combined to form a logical link.

5. (Previously Presented) The virtual switch of claim 1, wherein a packet header according to the virtual switch link protocol comprises a field indicating whether a packet has traversed the virtual switch link.

6. (Previously Presented) The virtual switch of claim 1, wherein the virtual switch link is used to synchronize routing tables of the master distribution switch chassis and the slave distribution switch chassis.

7. (Previously Presented) The virtual switch of claim 3, wherein the control virtual switch link extends an internal Out-of-Band Channel to communicate between the master distribution switch chassis and the slave distribution switch chassis.

8. (Previously Presented) The virtual switch of claim 3, wherein the data virtual switch link extends an internal chassis data plane to communication between the master distribution switch chassis and the slave distribution switch chassis.

9. (Original) The virtual switch of claim 3, wherein the master supervisor communicates with the slave supervisor via inband messaging on the control virtual switch link.

10. (Previously Presented) The virtual switch of claim 3, wherein the control virtual switch link is brought on-line first and is used to determine which chassis will be the master distribution switch chassis.

11. (Original) The virtual switch of claim 3, wherein a single physical link combines the control virtual switch link and the data virtual switch link.

12. (Original) The virtual switch of claim 3, wherein the control virtual switch link and the data virtual switch link are formed from separate physical links.

13. (Cancelled).

14. (Previously Presented) A method of forming a virtual switch from a plurality of physical switches in a network, the method comprising:

configuring a first physical switch as a master switch for controlling the virtual switch;

configuring a second physical switch as a slave switch under the control of the master switch, wherein the first physical switch and the second physical switch are redundant backups acting as distribution switches in a network;

forming a virtual switch link for communication between the master switch and the slave switch;

causing the master switch and the slave switch to communicate via a virtual switch link protocol;

communicating a media access control (MAC) notification frame between the master switch and the slave switch via the virtual switch link according to the virtual switch link protocol; and

causing the master switch and the slave switch to act as a single virtual switch when interacting with an access layer satellite switch coupled to both the master switch and the slave switch, wherein the virtual switch is configured to include a destination port.

15. (Previously Presented) The method of claim 14, wherein a packet header according to the virtual switch link protocol comprises a source port identifier.

16. (Previously Presented) The method of claim 14, wherein a packet header according to the virtual switch link protocol comprises a destination port index.

17. (Previously Presented)The method of claim 14, wherein a packet header according to the virtual switch link protocol comprises source flood information.

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18. (Previously Presented) The method of claim 14, wherein a packet header according to the virtual switch link protocol comprises virtual local area network (VLAN) information.

19.(Previously Presented) The method of claim 14, wherein the virtual switch link protocol is used by the first and second physical switches to indicate whether an access control list should be applied to a frame.

20. (Previously Presented) The method of claim 14, wherein the virtual switch link protocol is used by the first and second physical switches to indicate whether a quality of service (QoS) designation should be applied to a frame.

21. (Previously Presented) The method of claim 14, wherein the virtual switch link protocol is used by the first and second physical switches to indicate whether a frame is the MAC notification frame.

22. (Previously Presented) The method of claim 14, wherein a packet header according to the virtual switch link protocol comprises data plane priority information for a frame.

23. (Canceled)

24. (Original) The method of claim 14, further comprising forming the virtual switch link from a plurality of physical links acting as a single logical link.

25. (Previously Presented) The method of claim 14, further comprising forming the virtual switch link to include a data virtual switch link and a physically separate control virtual switch link.

26. (Original) The method of claim 14, further comprising:
updating layer 2 forwarding tables in the master switch;
updating layer 2 forwarding tables in the slave switch; and
correcting inconsistencies between the layer 2 forwarding tables in the master switch and
the layer 2 forwarding tables in the slave switch.

27. (Previously Presented) The method of claim 14 wherein the step of forming the virtual switch link comprises combining a data virtual switch link and a control virtual switch link on a single physical link.

28. (Original) The method of claim 25, further comprising:

updating layer 2 forwarding tables in the master switch;

updating layer 2 forwarding tables in the slave switch; and

correcting inconsistencies between the layer 2 forwarding tables in the master switch and the layer 2 forwarding tables in the slave switch according to frames transmitted on the data virtual switch link.

29. (Canceled)

30. (Previously Presented) An apparatus for forming a virtual switch from a plurality of physical switches in a distribution layer or a core layer of a network, the apparatus comprising:

means for configuring a first physical switch as a master switch for controlling the virtual switch;

means for configuring a second physical switch as a slave switch under the control of the master switch, wherein the first physical switch and the second physical switch are redundant backups acting as distribution switches in the network;

means for forming a virtual switch link for communication between the master switch and the slave switch;

means for causing the master switch and the slave switch to communicate one or more media access control (MAC) notification frames according to a virtual switch link protocol over the virtual switch link; and

means for causing the master switch and the slave switch to act as a single virtual switch when interacting with an access layer satellite switch.

31. (Previously Presented) A computer program embodied in a machine-readable medium, the computer program containing instructions for controlling a plurality of physical switches of a network to perform the following steps:

configuring a first physical switch as a master switch for controlling a virtual switch;

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configuring a second physical switch as a slave switch under the control of the master

switch, wherein the first physical switch and the second physical switch are

redundant backups acting as distribution switches in the network;

forming a virtual switch link for communication between the master switch and the slave

switch;

causing the master switch and the slave switch to communicate via a virtual switch link

protocol;

communicating a media access control (MAC) notification frame between the master

switch and the slave switch via the virtual switch link according to the virtual

switch link protocol; and

causing the master switch and the slave switch to act as a single virtual switch when

interacting with ~~to~~ an access layer satellite switch.

32. (Canceled)

33. (Withdrawn)

34. (Withdrawn)

35. (Withdrawn)

36. (Withdrawn)

37. (Withdrawn)

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